

With compliments from
Ronald Ross

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The Ronald Ross Gate of Commemoration.

AN exceedingly interesting ceremony took place in Calcutta on Friday, January 7th, 1927, when His Excellency Lord Lytton, Governor of Bengal, unveiled a commemorative gate in honour of Sir Ronald Ross near his old laboratory in the Presidency General Hospital. The memorial is in the form of a gateway bearing a bronze medallion of Sir Ronald in the centre above the arch; whilst on the left is an inscription to the effect that in the small laboratory 70 yards to the South-East of the gateway Sir Ronald Ross made his ever-memorable discovery of the mosquito transmission of malaria, and to the right of the medallion is a quotation from a poem which he wrote when he first found that the malarial parasite underwent development in a mosquito. We give below a photograph of the memorial; also a photograph of the medallion, for which Sir Ronald gave special sittings in London last year. There was a large gathering of the leading citizens of Calcutta.

In asking His Excellency to unveil the memorial, Lieu- Colonel J. W. D. Megaw, C.I.E., V.H.S., I.M.S., spoke as follows:—

Your Excellencies, ladies and gentlemen,

It is astonishing that so few of the inhabitants of Calcutta know of the existence of the little laboratory a few yards from this spot in which Sir Ronald Ross made one of the greatest discoveries in the history of the world. In the hot weather months of 1898 Surgeon Major Ronald Ross, I.M.S., found out how malaria is conveyed by the mosquito.

This discovery has been exploited to some extent; it has led to the saving of many thousands of lives, and to the reclamation of large tracts of country which would otherwise have been uninhabitable, but though 28 years have elapsed since it was made, we are only beginning to scratch the surface of the vast mine of wealth which it has placed in our possession.

If Sir Ronald's discovery were fully applied it would add millions of healthy human beings to the population of the earth, it would bring health and prosperity to many millions who now exist in poverty and ill-health. There is no other discovery for which such claims can justly be made.

About ten years before he made his great discovery Ross wrote the following lines which breathe a prophecy and a prayer:—

"In this, O Nature, yield I pray, to me.
I pace and pace, and think and think, and take
The fevered hands and note down all I see,
That some dim distant light may haply break.
The painful faces ask—'Can we not cure'?
We answer 'No, not yet; we seek the laws.'
O God! reveal through all this thing obscure
The unseen, small, but million murdering cause."

The answer to the prayer came after years of toil, but even before he had completed his discovery his confidence of victory was expressed in the lines which are now inscribed on the gate of commemoration which Your Excellency is about to unveil.

"This day relenting God
Hath placed within my hand
A wondrous thing, and God
Be praised, at His command,
Seeking His secret deeds
With tears and toiling breath
I find thy cunning seeds,
O million-murdering Death!
I know this little thing
A myriad men will save.
O death! where is thy sting,
Thy victory, O Grave?"

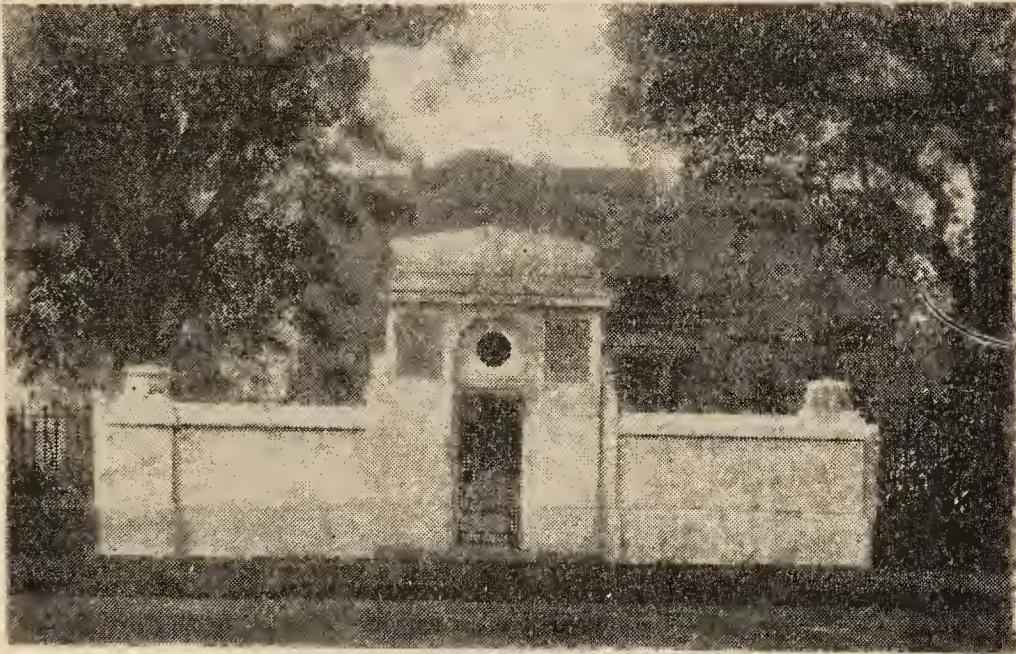
"A prophet is not without honour save in his own country." Sir Ronald's offence did not consist merely in being a prophet, he added to it by being a poet and a scientist, and so he trebly earned the indifference with which his great work was received in India.

Sir Ronald, not unnaturally, has often complained of the apathy and even opposition which he encountered.

I have sometimes thought that the obstacles which were placed in his path may have been blessings in disguise.

There are a few men of genius like Sir Ronald Ross and Sir Leonard Rogers, to whom obstacles are but stepping stones by which they climb to still greater heights of achievement.

If Sir Ronald had lived in times like the present under the benevolent rule of Your Excellency, he would have had no cause to complain of lack of encouragement or recognition; but would he have accomplished so much if he had been the pampered protégé instead of the grim and misunderstood worker, who had to fight for every opportunity to carry on his research? Certainly he could hardly have done more. He not only discovered how malaria is conveyed, he showed how the disease can be controlled. He himself at first was the only one who had the clearness of vision to see the vast results which would follow from his work. He was sadly mistaken



The Ronald Ross Gate of Commemoration.

when he imagined that the world would at once perceive the value of the great gift which he had placed at its disposal. The men of science might have been expected to realise the great possibilities of his discovery, but even they were unable to make the forward intellectual stride which was needed if they were to form a true estimate of its value.

Ross was years ahead of his times: in those days the suggestion that disease could be controlled by suppressing

mosquitoes provoked a sarcastic smile and the author of the proposal was regarded as an enthusiastic visionary. This indeed he was, but not in the vulgar sense, his vision was clear and his enthusiasm justified. It was the people of the time whose eyes had not yet been opened.

The completeness of his discovery was remarkable. If we knew nothing about malaria except what Ross found out, we should still be able to control the disease. If our knowledge consisted of what others discovered independently of the work of Ross we should know but little of the means of preventing malaria.

It is, therefore, not surprising that we should be so eager to mark the birth-place of his discovery. What is surprising is that after so many years it should be left to us to have the privilege of doing so.

The gate of commemoration which Your Excellency is about to unveil, though small in size and insignificant in appearance, will form a land-mark in the history of civilisation.

In unveiling the Memorial, His Excellency Lord Lytton made the following speech:—

“Ladies and gentlemen,

Colonel Megaw is quite right in saying that the ceremony which you have asked me to perform to-day is one that gives me unusual pleasure. We are commemorating an event from which every class in the community has already derived benefit and may yet derive even greater benefits in the years to come. We are honouring a man whom every Englishman and every Indian without distinction of creed or party is glad to honour. Seldom indeed has it fallen to my lot in the last 5 years to find myself the spokesman of such a completely unanimous opinion. There is not a man or woman in the whole of India who would grudge Sir Ronald Ross the highest measure of praise and gratitude which can be expressed in words.

His achievement, I think, is even greater than Colonel Megaw has described it, and I don't think any one will accuse me of exaggeration, if I say that Sir Ronald Ross's discovery has been the greatest contribution to medical knowledge since the days of Pasteur. So familiar are we now with the connection between malaria and the mosquito that it is difficult for us to realise how startling was the first announcement of this fact, nor how sceptical was the generation to which it was first made. Yet this knowledge, on which so much depends, we owe not to any accident but entirely to the patient,

thorough and successful research of one man—the man whom we have met to honour.

The consequences of this discovery which seems to us so simple, so obvious, have had, as Colonel Megaw has reminded us, the most far-reaching results. Not only has it revealed the cause of malaria, improved the treatment of the disease, helped towards its prevention and indicated the steps by which it may one day be eradicated, but it has also led to research along similar lines into the causes and treatment of other malignant epidemic diseases. Indeed, the whole of that magnificent and valuable institution of research of which Colonel Megaw is now himself the distinguished Principal may be truly said to owe its very existence to the work of Sir Ronald Ross.

Reading through the *Memoirs* of Sir Ronald's life, one is struck by his versatility, his high idealism and his perseverance in the face of difficulties and obstruction; and it is such qualities as these that have made him one of the world's greatest benefactors. There is also another side of his personality which deserves to be mentioned. I was once told that the historian Lecky, whose friends would never have suspected him of harbouring military ambitions, once confessed to a friend that the great regret of his life was that his parents had not made him a soldier, and he has left on record a poem in which this strange regret is half revealed:

'Not every thought can find its words,
Not all within is known;
For minds and hearts have many chords
That never yield their tone.
Tastes, instincts, feelings, passions, powers,
Sleep there unfelt, unseen;
And other lives lie hid in ours
The lives that might have been.'

I half suspect from the lines which Colonel Megaw has quoted, and some of which are reproduced upon the Gate of Commemoration which I shall presently unveil, that Sir Ronald Ross too is conscious of a 'life that might have been' and would perhaps rather be honoured as a poet than as a man of science. If so, this only reveals to us the breadth of his human sympathy, and adds to the measure of our appreciation of him. His self-imposed mission was to rid India of the scourge of fever from which it suffered, and he worked incessantly, ungrudgingly, in spite of disappointment and difficulties which might well have deterred other men from their purpose, until after four years of unremitting toil he

succeeded in finding the secret. Not content with disclosing the secret for the benefit of mankind, he completed his task by laying down detailed plans for the control of the disease.

Four years after he made his discovery Sir Ronald Ross had an opportunity of making his first great demonstration of its vast possibilities by freeing Ismailia of malaria at a time when the evacuation of the town was being seriously contemplated. He therefore showed by their practical application the immense value of the principles which he had established. So comprehensive were the plans he laid down that it was on their basis that all the great successful experiments in freeing the Panama Canal zone and other areas were subsequently carried out. It is nothing short of miraculous that such results should have been obtained by the discovery of one man and that he, almost unaided, should have been able to detect not only the means by which malaria is carried, but also the means by which it can be prevented.

Another fact which we are commemorating to-day and which we in Calcutta are proud to remember is the fact that this momentous discovery was made in this city in a small laboratory a few yards from this spot. That nearly 30 years should have passed without any recognition by Calcutta of Sir Ronald Ross's services to humanity is a reproach to this city, which I am glad to say is now at last going to be removed. It is customary to erect monuments and commemorative tablets to mark the sites where men have died or are buried, but so far as I know there are few such monuments to mark the place where knowledge has been born. Yet what could be a happier subject for commemoration than the birth-place of knowledge? We are all proud that Calcutta should have this distinction, but unfortunately other parts of the world have as yet derived more benefit from Sir Ronald Ross's discovery than the Province which gave it birth. Panama, Ismailia and West Africa owe their freedom from fever to his work. The Malay Peninsula, he tells me, is making good use of it. Bengal in 30 years has profited but little by it and is still a victim to the ravages of this disease. That is another reproach which after to-day's ceremony I hope we shall do something to remove.

There are two agencies in this Province that are concentrating the best available experience upon a war against disease. They are the School of Tropical Medicine and the Co-operative Anti-Malarial Societies—the one an official and the other unofficial organisations. The best memorial we could erect to Sir Ronald Ross,

the best use we could make of his discovery for the benefit of Bengal would be to raise a large endowment fund for the support of these two organisations. The School of Tropical Medicine is carrying on Sir Ronald Ross's work, is adding every year to our knowledge of the causes of diseases and the methods necessary for their prevention. They are the Intelligence Department of the Army of Health. The Co-operative Health Societies are the field force, they are carrying the knowledge obtained by the School of Tropical Medicine into the homes of the people and enlisting their co-operation in preventive measures. Funds are urgently needed for the support of each and I hope that as a result of this meeting a movement will be set on foot to raise a fund associated with Sir Ronald Ross's name to develop the work which these organisations are doing, and to carry it into every village in Bengal.

Sir Ronald's discovery has been worth many millions of pounds to the human race, apart altogether from the saving of life and the prevention of sickness. By the application of the principles which he laid down we can save many more lives and money for Bengal, we can restore the vitality of the Province and enable her to take a more prominent and valuable place in the work of the Empire."

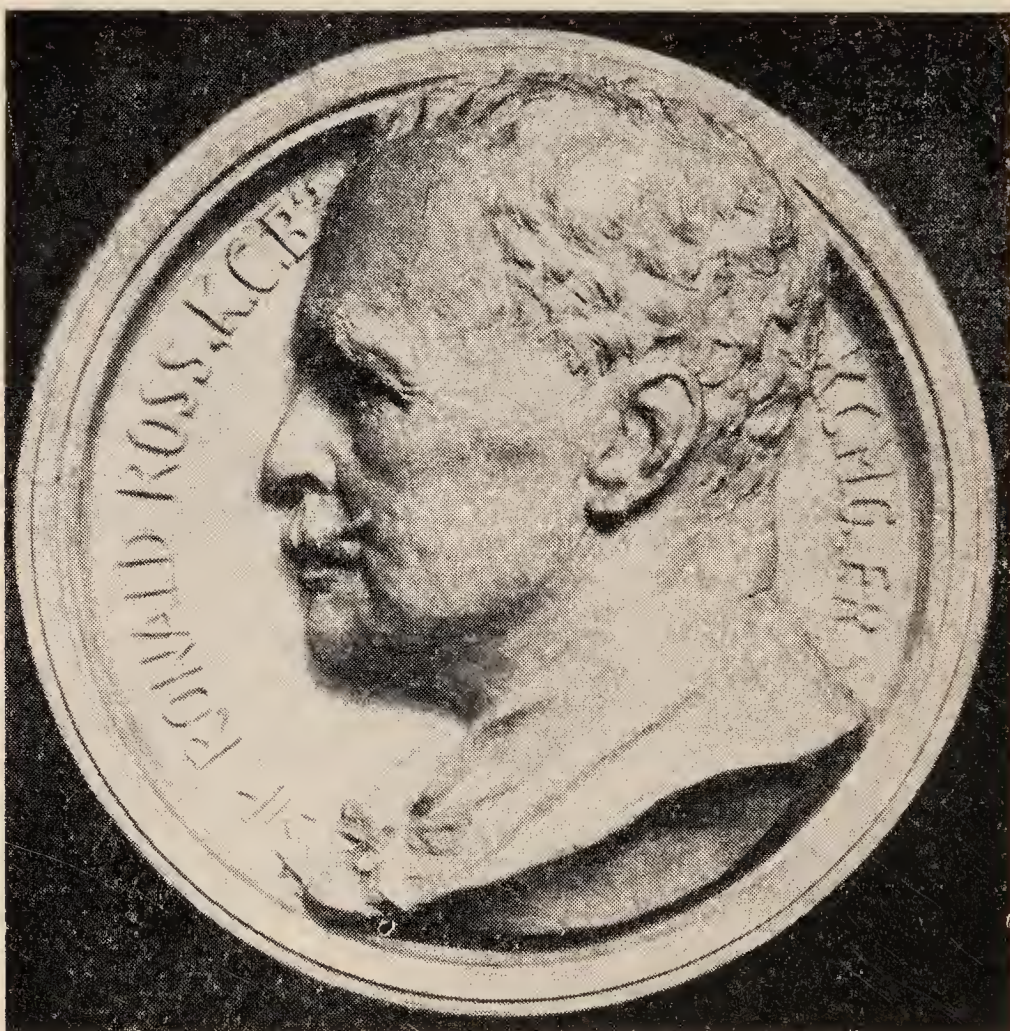
Sir Ronald Ross, who was obviously deeply moved with emotion, then made a brief speech which was in his happiest vein. He spoke as follows:—

"Your Excellency, ladies and gentlemen,

I trust that you will excuse me if my remarks are but brief. There are some moments in a man's lifetime when he is so overcome with emotion that he can hardly speak, and this is such a moment to me. I can only say that it is the proudest moment of my life. It is but rarely that men of science receive such recognition during their lifetime. I feel that I ought to be dead; but there is a good deal of life in me still.

If I may, Sir, I would like to recall the names of a few of the many who were associated with me in research work in malaria. I would refer to Dr. Alphonse Laveran, my master, who discovered the parasite of malaria, a man whose genius was typical of the great nation from which he sprang. I would refer to Sir Patrick Manson, from first to last my sponsor, and the man who put me on to the right trail. I would refer to Surgeon-General Harvey, at that time Director-General, Indian Medical Service. It is true that during these years of work I complained constantly and continuously,

But what is the use of being a great man if one is not allowed to 'grouse'? My grievances were genuine. It is true that my work was subject to constant interruptions. Surgeon-General Harvey could not help that, he could not prevent it, but he did his utmost to mitigate the circumstances, at every step he showed his interest and did all that he could to further my work. I would also like to refer to the subsequent work of many workers in India, including such men as Christophers, James, and Bentley.



Medallion on the gateway.

Discovery is always progressive and I should like to refer to the many workers who have added to our knowledge of malaria, many of them worked in India, their names are well known. I should like to mention a little incident that happened while I was working in my little laboratory. The late Colonel Maynard always took

a keen interest in my work. I well remember the morning when I first came across the oöcysts of the parasite of bird malaria in mosquitoes. I rushed out of the laboratory and came across him about a hundred yards from the hospital. I said to him 'I have got them again.' He looked greatly astonished and evidently suspected me of having got something quite different from oöcysts, but when he came to the conclusion that I was still in my sober senses—though he was probably sceptical as to the importance of the insignificant little objects which I showed him—he came across to see them.

I would like to refer to my bearer, Lachman. He is here to-day, standing in the corner of the tent. He was a faithful and a valuable servant and one who did much to help me in the laboratory. I would like to refer to my laboratory assistant, Mahomed Bux. He is dead now, poor fellow; he was for many years in the laboratory here after I left and he died here. He had only one failing, a fondness for smoking Indian hemp. At nights after he had had his pipe, his last conscious action before he fell down stuporous would be to chase away marauding cats from the mosquito nets within which were my birds and my mosquitoes.

Revisiting the scene of my work, Sir, after a lapse of twenty-eight years, I see very great changes. My old laboratory used to have black, soot-stained walls. It is now red. The hospital used to seem much closer to the laboratory than it now is. There was a simply magnificent ditch just outside the laboratory. I had only to step out of the laboratory and dip a pail into it to obtain a rich supply of various kinds of mosquito larvæ. They have gone and filled in that ditch. The place seems changed, somehow, and I much regret the disappearance of my valuable old ditch.

In conclusion, Your Excellency, I can only repeat that I am very conscious of the great honour which you and the citizens of Calcutta city have done me by erecting this memorial to my work."

After Sir Ronald's speech, His Excellency left the *shamiana* erected for the ceremony, crossed the road, and unveiled the memorial. He then opened the commemorative gateway and was conducted by Sir Ronald to the laboratory in which the great discovery was made.

The commemorative gateway faces on Lower Circular Road in front of the Presidency General Hospital, Calcutta; and it will be in full view of the thousands who pass along that road daily.

On Monday, the 10th of January, Sir Ronald delivered a lecture on malaria to a large audience at the Empire Theatre, Calcutta, under the presidency of His Excellency the Governor of Bengal. Sir Ronald told the



Sir Ronald Ross, K.C.B., K.C.M.G., F.R.S.,
standing at the gate.

story of his discovery to a deeply interested gathering. He referred to the recently established Ross Institute in London and thanked the many subscribers from India who had helped in promoting the cause of the Institute.